

REMARKS

Applicant notes with appreciation that, in the Final Office Action dated May 20, 2004, claims 1-17 were allowed. However, claims 18-23 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the combination of U.S. Patent No. 6,608,942 ("Le") and U.S. Patent No. 6,636,635 ("Matsugu").

As described in more detail below, all the claim limitations of the independent claim 18 are not taught or suggested by the cited references, and thus, the independent claim 18 is not obvious in view of Le and Matsugu. Specifically, Matsugu does not teach the claimed limitation of "*determining whether said maximum luminance value exceeds one of said corresponding thresholds*". Similarly, Le does not teach or suggest the claim limitation of "*computing a two-dimensional luminance curvature value for said selected region of said input digital image*", as recited in the dependent claim 20. As such, the dependent claim 20 is also not obvious in view of Le and Matsugu.

In view of the remarks made herein, Applicant respectively asserts that pending claims 18-23 should be allowed, in addition to the allowed claims 1-17.

A. Non-Obviousness of Independent Claim 18

The independent claim 18 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the combination of Le and Matsugu. In particular, the Final Office Action alleged that it would have been obvious to one of ordinary skill in the art to modify Le according to Matsugu.

To establish a *prima facie* case of obviousness, the following three basic criteria must be met, as set forth in MPEP 2143:

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations."

Therefore, to establish a *prima facie* case of obviousness for the independent claim 18, the cited references of Le and Matsugu must teach or suggest all of the claim limitations, as recited in the independent claim 18.

The independent claim 18 recites in part, "*determining whether said maximum luminance value exceeds one of said corresponding thresholds*". As correctly stated in section 6 on page 3 of the Final Office Action, "Le does not explicitly disclose the concept of determining whether said maximum luminance value exceeds on[e] of said corresponding thresholds." However, contrary to the assertion made in the same section of the Final Office Action, Matsugu does not teach this claim limitation of the independent claim 18.

The Final Office Action cited column 32, lines 54-63 of Matsugu to support the assertion that Matsugu teaches the above-identified claim limitation of the independent claim 18. Matsugu, in column 32, lines 54-63, states:

"FIG. 13 shows the processing flow of this embodiment. In particular, in this embodiment, the normalization processing of the luminance levels of two image data is performed before comparison data is extracted. More specifically, one of two image data is normalized by a maximum luminance value (to be described below) of reference image data, so that the maximum luminance value of luminance levels having frequencies equal to or larger than a predetermined value in the luminance histogram of the image equals other maximum luminance values that are similarly obtained."

The above passage of Matsugu describes the normalization process performed by an image sensing apparatus that uses images having different image sensing conditions in accordance with a third embodiment. See Col. 32, lines 43-53. This normalization process does not involve determining whether a maximum luminance value exceeds a threshold, as recited in the independent claim 18. Rather, the normalization process of Matsugu involves normalizing one of two image data by a maximum luminance value of reference image data, "so that the maximum luminance value of luminance levels having frequencies equal to or larger than a predetermined value in the luminance histogram of the image equals other maximum luminance values that are similarly obtained." That is, one of two image data is normalized by a maximum luminance value of reference image data, so that the maximum luminance value, which is the maximum luminance value of luminance levels having frequencies

equal to or larger than a predetermined value in the luminance histogram of the image, equals other maximum luminance values that are similarly obtained. Thus, the phrase “equal to or larger than a predetermined value” refers to the frequencies of the luminance levels, not the maximum luminance value. This normalization process involves using an equation, such as equation (17) for an example described in column 33, lines 8-21, of Matsugu, and does not require determining whether a maximum luminance value is greater than a threshold. Thus, Matsugu does not teach the claim limitation of “*determining whether said maximum luminance value exceeds one of said corresponding thresholds*”, as recited in the independent claim 18.

Since Matsugu does not teach the “*determining*” limitation of the independent claim 18, the Final Office Action has failed to establish a *prima facie* case of obviousness for the independent claim 18. Consequently, Applicant respectfully asserts that the independent claim 18 is not obvious over the combination of Le and Matsugu, and should be allowed.

B. Non-Obviousness of Dependent Claim 20

The dependent claim 20 was also rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the combination of Le and Matsugu. Specifically, the Final Office Action alleged that “Le discloses the method wherein said step of computing said first luminance characteristic includes computing a two-dimensional curvature (edge/boundary) value for said selected region of said input digital image (FIG. 10A and column 19, lines 13-18)”, as recited in the dependent claim 20. Applicant respectfully disagrees with this assertion.

The cited Fig. 10A and column 19, lines 13-18, of Le, refer only to a post-processing procedure in which a change in a pixel value is allowed only if the modified pixels in the neighborhood are ordered in a certain way. The cited figure and passage of Le do not relate in any way to “a two-dimensional luminance curvature value”, as recited in the dependent claim 20. In fact, the cited reference of Le does not even mention the term “curvature” in any context. The Final Office Action seems to suggest that “curvature” should be equated with “edge/boundary”. Although an edge or boundary may be curved, Applicant respectfully asserts that

"curvature" cannot be equated with "edge" or "boundary". Furthermore, the cited passage of Le only refers to pixels values, not a two-dimensional value, as recited in the dependent claim 20. Thus, Le does not teach "*computing a two-dimensional luminance curvature value for said selected region of said input digital image*", as recited in the dependent claim 20.

Since Le does not teach the "*computing*" limitation of the dependent claim 20, the Final Office Action has failed to establish a *prima facie* case of obviousness for the dependent claim 20. Consequently, Applicant respectfully asserts that the dependent claim 20 is not obvious over the combination of Le and Matsugu, and should be allowed.

C. Non-Obviousness of Dependent Claims 19 and 21-23

Each of the dependent claims 19 and 21-23 depends on the independent claim 18. As such, these dependent claims include all the limitations of their base claim, the independent claim 18. Therefore, Applicant submits that these dependent claims are allowable for at least the same reasons as the independent claim 18.

Applicant respectfully requests reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,



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Thomas H. Ham
Registration No. 43,654
Telephone: (925) 249-1300